

Listing of Claims:

This listing of claims reflects all claim amendments and replaces all prior versions, and listings, of claims in the application (material to be inserted is in **bold and underline**, and material to be deleted is in ~~strikeout~~ or (if the deletion is of five or fewer consecutive characters or would be difficult to see) in double brackets [[]].

1. (Currently amended) A lamp housing **assembly** comprising:
a reflector to reflect visible light and to pass radiation emitted from a light source disposed within the reflector **with a reflector outer surface**; and
a housing coupled to the reflector, the housing having **including** an inner surface, contoured similarly to the reflector **outer surface and extending substantially about the reflector, where the inner surface is specifically altered to enhance absorptivity of to** ~~absorb~~ passed radiation; and an outer surface having a plurality of formations so that the absorbed radiation can be transmitted as heat from the inner surface to the outer surface **wherein the formations are contoured similarly to the reflector outer surface and,** wherein the reflector is disposed substantially completely within the housing;
wherein the lamp housing assembly is configured to be disposed in a portable projection device.

2. (Previously presented) The lamp housing of claim 1, wherein the housing substantially blocks visible light that strays from the reflector.

3. (Previously presented) The lamp housing of claim 2, wherein the inner surface of the housing is prepared to block the stray visible light.

4. (Canceled)

5. (Previously presented) The lamp housing of claim 2, wherein the inner surface of the housing is prepared to enhance absorptivity of the passed radiation by applying a coating of an opaque material.

6. (Previously presented) The lamp housing of claim 5, wherein the opaque material is paint.

7. (Previously presented) The lamp housing of claim 2, wherein the inner surface of the housing is prepared to enhance absorptivity of the passed radiation by anodization.

8. (Previously presented) A lamp housing comprising:
a reflector capable of reflecting a visible light but passing a radiation emitted from a light source disposed within the reflector; and

a housing coupled to the reflector, the housing having an inner surface capable of absorbing the passed radiation and an outer surface having a plurality of formations to enlarge the area of the outer surface so that the absorbed radiation can be transmitted as heat from the inner surface to the outer surface at a reduced temperature, wherein the inner surface of the housing is prepared to enhance absorptivity of the passed radiation by peening, wherein the housing is further capable of blocking the visible light that strays from the reflector.

9. (Previously presented) A lamp housing comprising:
a reflector capable of reflecting a visible light but passing a radiation emitted from a light source disposed within the reflector; and

a housing coupled to the reflector, the housing having an inner surface capable of absorbing the passed radiation and an outer surface having a plurality of formations to enlarge the area of the outer surface so that the absorbed radiation can be

transmitted as heat from the inner surface to the outer surface at a reduced temperature, wherein the inner surface of the housing is prepared to enhance absorptivity of the passed radiation by knurling, wherein the housing is further capable of blocking the visible light that strays from the reflector.

10. (Previously presented) The lamp housing of claim 2, wherein the outer surface of the housing blocks the stray visible light.

11. (Canceled)

12. (Previously presented) The lamp housing of claim 1, wherein the absorbed radiation is infrared (IR) radiation.

13. (Previously presented) The lamp housing of claim 1, wherein the plurality of formations are plates disposed in a parallel manner across the outer surface of the housing.

14. (Previously presented) The lamp housing of claim 1, wherein the plurality of formations are fins disposed longitudinally across the outer surface of the housing.

15. (Previously presented) The lamp housing of claim 1, wherein the plurality of formations are rings disposed latitudinally across the outer surface of the house.

16. (Previously presented) The lamp housing of claim 1, wherein the housing and the reflector are formed as an integral unit.

17-23. (Cancelled)

24. (Previously presented) An apparatus comprising:
a means for a reflector that is capable of reflecting a visible light but passing a radiation emitted from a means for a light source disposed within the reflector; and
a means for a housing coupled to the reflector means, the housing means having

an inner surface and an outer surface, wherein the housing means include a means for absorbing the passed radiation through the inner surface and a means for enlarging the area of the outer surface with a plurality of formations so that the absorbed radiation can be transmitted as heat from the inner surface to the outer surface at a reduced temperature, wherein the means for absorbing the passed radiation through the inner surface is enhanced by peening the inner surface.

25. (Previously presented) An apparatus comprising:

a means for a reflector that is capable of reflecting a visible light but passing a radiation emitted from a means for a light source disposed within the reflector; and

a means for a housing coupled to the reflector means, the housing means having an inner surface and an outer surface, wherein the housing means include a means for absorbing the passed radiation through the inner surface and a means for enlarging the area of the outer surface with a plurality of formations so that the absorbed radiation can be transmitted as heat from the inner surface to the outer surface at a reduced temperature, wherein the means for absorbing the passed radiation through the inner surface is enhanced by knurling the inner surface.

26-32. (Canceled)

33. (Currently amended) A method for managing light and radiation in a lamp comprising:

disposing a lamp that emits a visible light and a radiation in a reflector, the reflector reflecting the visible light but passing the radiation, **wherein the reflector has an opening on a first end and a fitting on a second end**; and

encasing the lamp and reflector substantially completely within a housing, the

housing having an inner surface configured to substantially correspond to the reflector **and extend substantially around the reflector where the inner surface is specifically altered to enhance absorptivity of** ~~[, which absorbs]~~ the passed radiation, and an outer surface from which extend a plurality of formations to enlarge the area of the outer surface so that the absorbed radiation can be emitted as heat from the outer surface at a reduced temperature

wherein the formations extend substantially from the reflector opening on the first end to the fitting on the second end.

34. (Original) The method of claim 33, further comprising blocking the visible light that strays from the reflector with the housing.

35. (Original) The method of claim 34, wherein the blocking is performed by the inner surface of the housing.

36. (Original) The method of claim 34, wherein the blocking is performed by the outer surface of the housing.

37. (Canceled)

38. (Original) The method of claim 34, wherein the absorbed radiation is infrared (IR) radiation.

39. (Original) The method of claim 34, wherein the plurality of formations are plates disposed in a parallel manner across the outer surface of the housing.

40. (Original) The method of claim 34, wherein the plurality of formations are fins disposed longitudinally across the outer surface of the housing.

41. (Original) The method of claim 34, wherein the plurality of formations are rings disposed latitudinally across the outer surface of the housing.

42. (Original) The method of claim 34, further comprising forming the housing and the reflector as an integral unit.

43. (Currently amended) A projection lamp system, comprising:

a projector case;

a lamp housing disposed within the projector case, the lamp housing having **further including:**

a reflector to reflect visible light and passing **to selectively pass** [a] radiation emitted from a light source disposed within the reflector, **the reflector having a first end and a second end**; and

a ~~heat-dissipating housing~~ **reflector shell** coupled to the reflector having an inner surface ~~capable of absorbing~~ **specifically altered to enhance the absorption of** the passed radiation from the ~~lamp housing~~ **reflector, wherein the reflector shell is contoured similarly to the reflector** and an outer surface having **with** a plurality of formations to enlarge the area of the outer surface so that the absorbed radiation can be transmitted as heat from the inner surface to the outer surface **and where the formations extend generally between the first end and the second end of the reflector**[[.]];

wherein the reflector is disposed substantially ~~[[completely]]~~ within the **reflector shell** ~~heat-dissipating housing~~.

44. (Currently amended) The projection lamp system of claim 43, wherein the ~~heat-dissipating housing is further capable of blocking~~ **blocks** the visible light that strays from the reflector.

45. (Currently amended) The projection lamp system of claim 44, wherein the inner surface ~~of the heat-dissipating housing~~ is prepared to block the stray visible light.

46. (Currently amended) The projection lamp system of claim 44, wherein the inner surface ~~of the heat dissipating housing~~ is prepared to enhance absorptivity of the passed radiation.

47. (Currently amended) The projection lamp system of claim 46, wherein the inner surface ~~of the heat dissipating housing~~ is prepared to enhance absorptivity of the passed radiation by applying a coating of an opaque material.

48. (Original) The projection lamp system of claim 47, wherein the opaque material is paint.

49. (Currently amended) The projection lamp system of claim 46, wherein the inner surface ~~of the heat dissipating housing~~ is prepared to enhance absorptivity of the passed radiation by anodization.

50. (Currently amended) A projection lamp system, comprising:

a projector case having a touchable surface;

a lamp housing disposed within the projector case, the lamp housing ~~having~~ **further including:**

a reflector ~~capable of reflecting~~ **to reflect** a visible light ~~[[but]]~~ **and** passing ~~[[a]]~~ radiation emitted from a light source disposed within the reflector; and

a ~~housing~~ **reflector shell** coupled to the reflector, the ~~housing~~ **reflector shell** having an inner surface ~~capable of absorbing the~~ **to absorb** passed radiation and an outer surface ~~having~~ **with** a plurality of formations to enlarge the area of the outer surface so that the absorbed radiation can be transmitted as heat from the inner surface to the outer surface at a reduced temperature, and so that the touchable surface of the projector case is within safety requirements for touch temperature~~[[,]]~~;

wherein the inner surface ~~of the housing~~ is prepared to enhance absorptivity of the passed radiation by peening[[,]]; and

wherein the housing ~~is further capable of blocking~~ blocks the visible light that strays from the reflector.

51. (Currently amended) A projection lamp system, comprising:

a projector case having a touchable surface;

a lamp housing disposed within the projector case, the lamp housing ~~having~~ further including:

a reflector ~~capable of reflecting~~ to reflect a visible light ~~but~~ and passing [[a]] radiation emitted from a light source disposed within the reflector; and

a ~~housing~~ reflector shell coupled to the reflector, the ~~housing~~ reflector shell having an inner surface ~~capable of absorbing the~~ to absorb passed radiation and an outer surface ~~having~~ with a plurality of formations to enlarge the area of the outer surface so that the absorbed radiation can be transmitted as heat from the inner surface to the outer surface at a reduced temperature, and so that the touchable surface of the projector case is within the safety requirements for touch temperature[[,]];

wherein the inner surface ~~of the housing~~ is prepared to enhance absorptivity of the passed radiation by knurling[[,]]; and

wherein the housing ~~is further capable of blocking~~ blocks the visible light that strays from the reflector.

52. (Currently amended) The projection lamp system of claim 44, wherein the outer surface ~~of the housing~~ blocks the stray visible light.

53. (Canceled)

54. (Original) The projection lamp system of claim 43, wherein the absorbed radiation is infrared (IR) radiation.

55. (Currently amended) The projection lamp system of claim 43, wherein the plurality of formations are plates disposed in a parallel manner across the outer surface of the housing.

56. (Currently amended) The projection lamp system of claim 43, wherein the plurality of formations are fins disposed longitudinally across the outer surface of the housing.

57. (Currently amended) The projection lamp system of claim 43, wherein the plurality of formations are rings disposed latitudinally across the outer surface of the housing.

58. (Original) The projection lamp system of claim 43, wherein the housing and the reflector are formed as an integral unit.

59. (Previously presented) A projection lamp system including a projector case and a lamp housing according to claim 1, wherein the lamp housing is configured to be positioned substantially within the projector case.

60. (Previously presented) The lamp housing of claim 1, wherein the inner surface of the housing is prepared to enhance absorptivity of the passed radiation by peening.

61. (Previously presented) The lamp housing of claim 1, wherein the inner surface of the housing is prepared to enhance absorptivity of the passed radiation by knurling.

62. (Previously presented) A projection lamp system utilizing the method for managing light and radiation in a lamp according to claim 33.

63. (Currently amended) The projection lamp system of claim 43, wherein the inner surface ~~of the housing~~ is prepared to enhance absorptivity of the passed radiation by peening.

64. (Currently amended) The projection lamp system of claim 43, wherein the inner surface ~~of the housing~~ is prepared to enhance absorptivity of the passed radiation by knurling.

65. (New) A lamp housing comprising:

a reflector to reflect visible light and to pass radiation emitted from a light source disposed within the reflector; and

a housing coupled to the reflector, the housing having an inner surface, contoured similarly to the reflector, to absorb passed radiation and an outer surface having a plurality of formations so that the absorbed radiation can be transmitted as heat from the inner surface to the outer surface;

wherein the reflector is disposed substantially completely within the housing; and

wherein the inner surface of the housing is prepared to enhance absorptivity of the passed radiation by knurling.

66. (New) A lamp housing comprising:

a reflector to reflect visible light and to pass radiation emitted from a light source disposed within the reflector; and

a housing coupled to the reflector, the housing having an inner surface, contoured similarly to the reflector, to absorb passed radiation and an outer surface having a plurality

of formations so that the absorbed radiation can be transmitted as heat from the inner surface to the outer surface;

wherein the reflector is disposed substantially completely within the housing; and

wherein the inner surface of the housing is prepared to enhance absorptivity of the passed radiation by knurling.

67. (New) A projection lamp system, comprising:

a projector case;

a lamp housing disposed within the projector case, the lamp housing further including:

a reflector to reflect visible light and to pass a radiation emitted from a light source disposed within the reflector; and

a reflector shell coupled to the reflector having an inner surface to absorb the passed radiation from the reflector and an outer surface with a plurality of formations to enlarge the area of the outer surface so that the absorbed radiation can be transmitted as heat from the inner surface to the outer surface;

wherein the reflector is disposed substantially completely within the housing; and

wherein the inner surface is prepared to enhance absorptivity of the passed radiation by peening.

68. (New) A projection lamp system, comprising:

a projector case;

a lamp housing disposed within the projector case, the lamp housing further including:

a reflector to reflect visible light and to pass a radiation emitted from a light source disposed within the reflector; and

a reflector shell coupled to the reflector having an inner surface to absorb the passed radiation from the reflector and an outer surface with a plurality of formations to enlarge the area of the outer surface so that the absorbed radiation can be transmitted as heat from the inner surface to the outer surface;

wherein the reflector is disposed substantially completely within the housing; and wherein the inner surface is prepared to enhance absorptivity of the passed radiation by knurling.

69. (New) The projection lamp system of claim 1, wherein the reflector includes an opening on a first end and a fitting on the second end and the formations on the outer surface of the housing extend substantially between the opening and the fitting.